

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

PCT

(10) International Publication Number
WO 2004/056656 A1

(51) International Patent Classification⁷: **B65B 31/02**, 43/26, 57/00

(21) International Application Number: PCT/NZ2003/000290

(22) International Filing Date: 22 December 2003 (22.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 523299 20 December 2002 (20.12.2002) ZA

(71) Applicant (for all designated States except US): **SEALED AIR (NZ) LIMITED [NZ/NZ]**; Corner Avalon Drive and Foreman Road, Hamilton (NZ).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KOKE, John, Paul** [NZ/NZ]; Corner Avalon Drive and Foreman Road, Hamilton (NZ). **WHITEHEAD, Ronald, William** [NZ/NZ]; 111 Ferguson Road, RD5, Hamilton (NZ). **BRINKMAN, Jacob** [NL/NZ]; 37 Raymond Street, Hamilton (NZ).

(74) Agents: **WEST-WALKER, Gregory, J., et al.**; A J Park, 6th Floor Huddart Parker Building, Post Office Square, PO Box 949, 6015 Wellington (NZ).

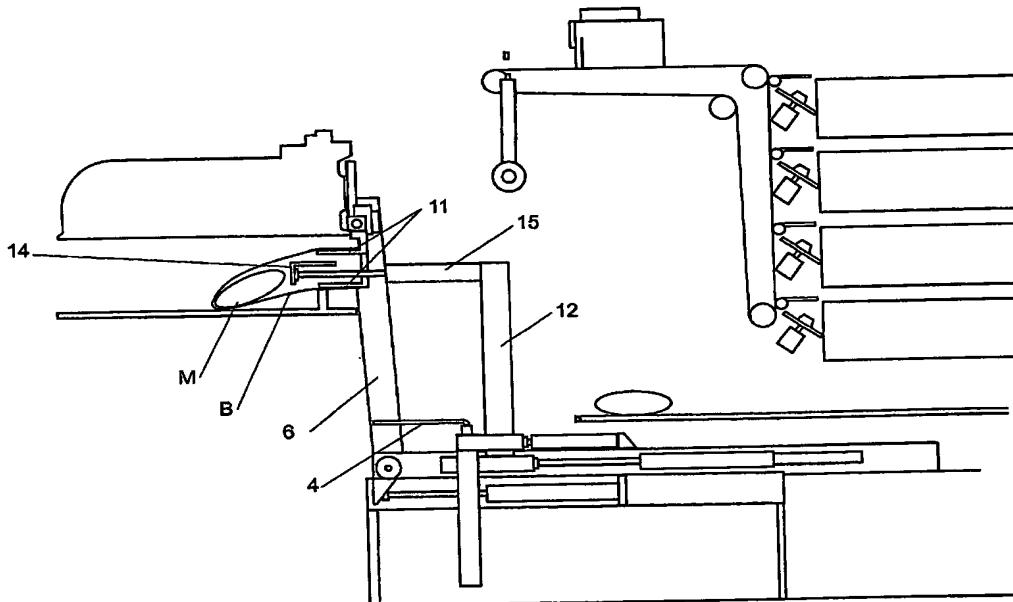
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: VACUUM PACKAGING MACHINE AND LOADING SYSTEM



WO 2004/056656 A1

(57) Abstract: Apparatus for vacuum packing products includes a vacuum packaging machine, an upstream product information acquisition stage arranged to acquire information relating to one or more characteristics of products on a product packing line, and a pack opener arranged to open the mouth of each pack to a controlled extent based on information relating to products being packed acquired at the upstream product information acquisition stage, and to present the pack so that the products are delivered into the open packs which are then delivered into the vacuum packaging machine, or deliver the products into the open packs which are already at least partially entered into the vacuum packaging machine.



- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.